

REMARKS

Claims 1-17, 19, 20, and 22-32 are currently pending. Claim 20 has been amended for clarification. It is respectfully submitted that no new matter has been added.

The Patent Office is thanked for its allowance of claims 20 and 22-27 and its indication that claims 6, 14, and 31 recite patentable subject matter. However, applicant believes that all pending claims are allowable.

Response to Response to Arguments

The Patent Office admits on page 4, lines 21-23, of the Final Office Action dated October 29 2008 that “Bridges does not explicitly show that upon any one of the plurality of stored system identification matching the received system identification, declaring the wireless service provider as being a home service provider for the mobile station.”

The Patent Office has asserted, on page 5, lines 1-3, of the Final Office Action dated October 29 2008, that Mauney in paragraph 0039 discloses comparing a received system identification against the stored plurality of system identifications and if there is a match declaring the wireless provider associated with the received system identification to be a home service provider. **Mauney only discloses one SID is stored in the NAM, so only one SID is compared to the received SID. Mauney thereby fails to provide the teaching relied upon by the Patent Office.**

The comparison in Bridges, discussed on page 3, lines 1-16, of the Final Office Action dated October 29 2008 mentions that “the mobile station determines whether it is in its home system or market area.” In Applicant’s claimed invention, there is more than one system identification that can correspond to a home service provider. This is shown in both Figures 4A and 4B: in Figure 4A, the NAM 15A is checked first for a home SID match and, failing that, the cousin SID list 200 is checked for a SID match to determine a home service provider and in Figure 4B, the cousin list 200 is checked first and then, if there is no match, the NAM 15A is checked.

None of the prior art, alone or in combination, teaches or makes obvious the checking of a plurality of system identifications to determine a home service provider.

Rejections under 35 U.S.C. 103(a)

Applicant’s claimed invention relates to a method for relating a plurality of system

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identifications (SIDs) in a mobile device is provided. The method includes the steps of identifying a plurality of SIDs having a common spatial characteristic, storing the identified plurality of SIDs, comparing a SID received from a wireless service provider to the stored plurality of SIDs and, upon any one of the plurality of stored SIDs matching the received SID, declaring the wireless service provider as being a Home service provider. Alternatively, or in conjunction with comparing received SIDs for the case where none of the plurality of stored SIDs matches the received SID, Applicant's claimed invention further compares a received System Operator Code (SOC) to stored SOC's, including at least one of a Home SOC, a Partner SOC, a Favored SOC and a Forbidden SOC.

Please note in Figures 4A and 4B that more than one SID may qualify in determining a home service provider. This claim feature in claims 1, 10, 17, and 32 is not taught in paragraph 0039 of Mauney.

The Patent Office rejected claims 1 and 32 under 35 U.S.C. 103(a) as being unpatentable over Bridges, U.S. Published Patent Application No. 2003/0186695, in view of Mauney, U.S. Published Patent Application No. 2005/0159107.

Claim 1 recites

A method comprising: storing a system identification that identifies a home service provider for a mobile station; identifying a plurality of system identifications having a common spatial characteristic; storing the identified plurality of system identifications in a memory that is accessible by a mobile station; comparing a system identification received from a wireless service provider to the stored plurality of system identifications; and upon any one of the plurality of stored system identifications matching the received system identification, declaring the wireless service provider as being a home service provider for the mobile station.

The Patent Office asserted on page 4, lines 13-23, of the Final Office Action dated October 29 2008, as follows:

identifying a plurality of SIDs having a common spatial characteristic (page 7[0064]i.e., an example of two cellular subscribers (read on "plurality of SID") who roam into a geographic area (e.g., Austin) from the same market (e.g., Dallas, read on "common partial characteristics"); storing the identified plurality of SIDs in a memory that is accessible by a

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mobile station (page 2[0013] and page 3[0028]); comparing a SID received from a wireless service provider to the stored plurality of SIDs (page 7[0060]).

Bridges does not explicitly show that upon any one of the plurality of stored SIDs matching the received SID, declaring the wireless service provider as being a home service provider for the mobile station.

Paragraph 0064 of Bridges discloses as follows:

[0064] Because some markets operate using multiple SIDs, PSLs/IRDBs will need to be administered on a per SID basis. Even within a given market (SID), different PSLs/IRDBs will be required to support different classes of service. This can be demonstrated by an example of two cellular subscribers who roam into a geographic area (e.g., Austin) from the same market (e.g., Dallas). If one subscriber desires to receive Short Message Service, they may roam to a service provider supporting that service (e.g., Service Provider A) while the other subscriber who requires only voice (a class of service hereinafter referred to as wireless POTS (Plain Old Telephone Service)) may roam to another service provider providing a more attractive roaming rate (e.g., Service Provider B). This is required because not all service providers will support all classes of service. The roaming paradigm must change to accommodate scenarios like these.

Paragraph 0013 of Bridges discloses as follows:

[0013] The mobile station may include a memory device, such as a number assignment module (NAM), in which an assigned phone number and a system identification code (SID) and/or System Operator Code (SOC) is stored to uniquely identify the home service provider for the unit. In the North American cellular system, each provider within a market area is assigned a distinct, fifteen bit SID. IS-136 service providers are also assigned a 12-bit SOC for use throughout all their market areas. In Europe, on the other hand, the Global System for Mobile Communications (GSM) standard (see, for example, Recommendation GSM 02.11, Service Accessibility, European Telecommunications Standards Institute, 1992) defines a process for network selection based on the mobile station reading the GSM equivalent of the SID, called the Public Land Mobile Network (PLMN) identity.

Paragraph 0028 of Bridges discloses as follows:

[0028] According to another embodiment of the present invention, a mobile station is provided that comprises a memory and a selector. The

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memory stores a list of preferred wireless carrier identities based upon a selected class of service for a plurality of market areas. The selector automatically selects a preferred wireless carrier from the list stored in the memory when the mobile station is roaming and enters one of the market areas of the plurality of market areas. Preferably, the mobile station switches to the preferred wireless carrier, selected from the list of preferred wireless carrier identities, to use for communication in response to the mobile station roaming to the predetermined market area. The list of preferred wireless carrier identities may be downloaded to the memory from a message center via a communications link established between the message center and the memory. The communications link may comprise a wireless communications link and/or a hard-wire or wired communications link. Programming of the mobile station unit and entry of preferred wireless carrier identities may also be performed manually by using the keypad of the mobile station unit.

Paragraph 0060 of Bridges discloses as follows:

[0060] At step S.6, the mobile station determines whether it is in its home system or market area. Whether or not the mobile station is located in its home market area may be determined by analyzing the SID, SOC or equivalent system identification number of the cellular service provider for the area in which the mobile station is located. By comparing the SID or SOC received on the control channel with the home SID or SOC of the home service provider, the mobile station may determine whether it is located in its home system. As described above, the home SID or SOC may be stored in the NAM of the mobile station, or may be stored in another appropriate memory or storage device of the mobile station. For example, the home SID or SOC may be stored separately from the PSL/IRDB of the mobile station, or may be stored in memory 67 as part of the PSL/IRDB.

Claim 1 in pertinent part recites as follows:

identifying a plurality of system identifications having a common spatial characteristic; storing the identified plurality of system identifications in a memory that is accessible by a mobile station; comparing a system identification received from a wireless service provider to the stored plurality of system identifications; and upon any one of the plurality of stored system identifications matching the received system identification, declaring the wireless service provider as being a home service provider for the mobile station.

Paragraph 0064 of Bridges discloses that a subscriber may roam to a service provider that

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provides the class of service the subscriber wants to use at that time. Paragraph 0013 discloses a number assignment module storing “an assigned phone number and a system identification code (SID) and/or System Operator Code (SOC) is stored to uniquely identify the home service provider for the unit.” Paragraph 0028 discloses a mobile station “memory stores a list of preferred wireless carrier identities based upon a selected class of service for a plurality of market areas.” Paragraph 0060 discloses “by comparing the SID or SOC received on the control channel with the home SID or SOC of the home service provider, the mobile station may determine whether it is located in its home system.”

These four paragraphs from Bridges, alone or collectively, do not disclose or suggest “identifying a plurality of system identifications having a common spatial characteristic,” then “storing the identified plurality of system identifications in a memory that is accessible by a mobile station,” and then “comparing a system identification received from a wireless service provider to the stored plurality of system identifications.” Bridges, in paragraph 0064, discloses that if a subscriber is in a market, roaming occurs to find a service provider providing a desired service and **does not disclose identifying a plurality of system identifications having a common spatial characteristic which are then stored and then compared.** The four paragraphs 0013, 0028, 0060, and 0064 of Bridges are not interrelated so as to provide a teaching or suggestion of the claimed sequence of claim 1.

That is to say, that when a subscriber enters a market, e.g., paragraph 0064, of Bridges, any PSL/IRDB or list of SIDs that the subscriber may have is not one disclosed or suggested as identifying a plurality of system identifications having a common spatial characteristic. In Applicant’s claimed invention, there is first an identification of system identifications having a common spatial characteristic which is then stored and later used in a comparison.

The Patent Office admits “Bridges does not explicitly show that upon any one of the plurality of stored SIDs matching the received SID, declaring the wireless service provider as being a home service provider for the mobile station.”

Mauney in paragraph 0039 is asserted by the Patent Office, on page 5, lines 1-3, of the Final Office Action dated October 29 2008, as teaching “upon any one of the plurality of stored

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SIDs matching the received SID, declaring the wireless service provider as being a home service provider for the mobile station (page 2 [0039]).”

Mauney’s paragraph 0039 is reproduced below:

[0039] The wireless handset may include a memory device, such as a number assignment module (NAM), in which an assigned phone number (MIN) and a system identification code (SID) is stored to uniquely identify the home service provider for the unit. In addition, the wireless handset may store a unique Electronic Serial Number (ESN) that is assigned to the wireless handset. In the North American cellular system, each cellular market or provider is assigned a distinct, fifteen bit SID. In Europe, on the other hand, the Global System for Mobile Communications (GSM) standard (see, for example, Recommendation GSM 02.11, Service Accessibility, European Telecommunications Standards Institute, 1992) defines a process for network selection based on the wireless handset reading the GSM equivalent of the SID, called the Public Land Mobile Network (PLMN) identity. The SID or equivalent system identification number is broadcast by each service provider or cellular provider and is used by the wireless handset to determine whether or not the wireless handset is operating in its home network or if it is operating in a roaming condition. The wireless handset makes this determination by reading the SID that is broadcast in the cellular market in which it is located, and comparing it to the home SID stored in the NAM of the cellular phone unit. If the SIDs do not match, then the wireless handset is roaming, and the mobile station must attempt to gain service through a non-home service provider. Due to the imposition of a fixed surcharge or higher per unit rate, the airtime charges when the mobile station is roaming are customarily higher than when it is operating within its home network.

The limitation from claim 1 is as follows: “upon any one of the plurality of stored system identifications matching the received system identification, declaring the wireless service provider as being a home service provider for the mobile station.” All paragraph 0039 of Mauney seems to teach is comparing the broadcast system identification to the home system identification stored in the number assignment module where if there is no match, the wireless handset is considered to be roaming. **This teaching from Mauney is not a teaching for “upon any one of the plurality of stored system identifications matching the received system identification” or “upon any one of the plurality of stored system identifications matching the received system identification, declaring the wireless service provider as being a home**

service provider for the mobile station.”

Mauney also does not remedy the above noted deficiency of Bridges.

Thus, claims 1 and 32 allowable over Bridges over Mauney because 1) Bridges does not teach all the claimed subject matter it is purported to teach and 2) Mauney does not teach the deficiency that the Patent Office does allege exists in Bridges.

The Patent Office rejected claims 4, 7, 9, 10, 12, 15, 17, and 28 under 35 U.S.C. 103(a) as being unpatentable over Bridges in view of Mauney, and further in view of McGregor, U.S. Published Patent Application No. 2001/0000777.

As discussed above, Bridges in view of Mauney does not make obvious either claim 1 or claim 17. Bridges in view of Mauney does not disclose or make obvious declaring a wireless service provider as being a home service provider or home category service provider.

Claim 10 recites

A wireless communication system of a type that transmits system identification (SID) parameters to mobile stations, comprising in mobile stations associated with a prepaid service provider at least one memory storing a SID that identifies a home service provider for the mobile station and a list containing a plurality of other SIDs having a common spatial characteristic, the mobile station comprising a processor that is coupled to the at least one memory and that is responsive to a received SID for comparing the received SID to the SIDs in the list of SIDs and, upon any one of the plurality of SIDs matching the received SID, declaring a wireless service provider that transmitted the SID as being the home service provider for the mobile station.

Similar to the discussion regarding claims 1 and 17, neither Bridges nor Mauney discloses or suggests claim 10's "a list containing a plurality of other SIDs having a common spatial characteristic" and "responsive to a received SID for comparing the received SID to the SIDs in the list of SIDs and, upon any one of the plurality of SIDs matching the received SID, declaring a wireless service provider that transmitted the SID as being the home service provider for the mobile station."

Specifically, Bridges in paragraph 0060 does not teach "comparing the received SID to

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the SIDs in the list of SIDs” of claim 10. Instead, Bridges in paragraph 0060 merely teaches a comparison of a received SID or a received SOC with the home SID or the home SOC; there is no list. Furthermore, Mauney, in paragraph 0036, does not teach “a list containing a plurality of other SIDs having a common spatial characteristic.”

McGregor, which discloses a home SID and a prepaid mode, does not remedy the deficiency of Bridges and/or Mauney.

Claim 17 recites

An apparatus, comprising: a controller; a wireless transceiver; and at least one memory, the at least one memory comprising a location for storing a home system identification and other locations for storing a plurality of cousin system identifications, wherein a system identification received through said wireless controller is declared by said controller to be a home service provider if the received system identification matches the stored home system identification or any one of the plurality of stored cousin system identifications, wherein the cousin system identifications are stored into said at least one memory under the direction of a prepaid service provider, and correspond to system identifications associated with one or more service providers that service a predetermined geographical area that is defined to be a non-roaming area of a customer of the prepaid service provider, wherein the home system identification is stored in at least one memory without the direction of a prepaid service provider.

The Patent Office has not addressed the previously claimed subject matter of the cousin system identifications are stored into said at least one memory under the direction of a prepaid service provider and the home system identification is stored in at least one memory without the direction of a prepaid service provider, which have been amended for clarification to now recite “the cousin system identifications are stored into said at least one memory under the direction of a prepaid service provider” and “the home system identification is stored in at least one memory without the direction of a prepaid service provider.”

Where does either Bridges or Mauney disclose or suggest “the cousin system identifications are stored into said at least one memory under the direction of a prepaid service provider” and “the home system identification is stored in at least one memory without the direction of a prepaid service provider?”

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Mauney's paragraph 0039 is reproduced below:

[0039] The wireless handset may include a memory device, such as a number assignment module (NAM), in which an assigned phone number (MIN) and a system identification code (SID) is stored to uniquely identify the home service provider for the unit. In addition, the wireless handset may store a unique Electronic Serial Number (ESN) that is assigned to the wireless handset. In the North American cellular system, each cellular market or provider is assigned a distinct, fifteen bit SID. In Europe, on the other hand, the Global System for Mobile Communications (GSM) standard (see, for example, Recommendation GSM 02.11, Service Accessibility, European Telecommunications Standards Institute, 1992) defines a process for network selection based on the wireless handset reading the GSM equivalent of the SID, called the Public Land Mobile Network (PLMN) identity. The SID or equivalent system identification number is broadcast by each service provider or cellular provider and is used by the wireless handset to determine whether or not the wireless handset is operating in its home network or if it is operating in a roaming condition. **The wireless handset makes this determination by reading the SID that is broadcast in the cellular market in which it is located, and comparing it to the home SID stored in the NAM of the cellular phone unit.** If the SIDs do not match, then the wireless handset is roaming, and the mobile station must attempt to gain service through a non-home service provider. Due to the imposition of a fixed surcharge or higher per unit rate, the airtime charges when the mobile station is roaming are customarily higher than when it is operating within its home network.

Mauney in paragraph 0039 does not disclose cousin IDs; instead, Mauney discloses a home SID stored in the NAM that if not found is presumed to mean that the wireless handset is roaming. Applicant does not see where Mauney discloses or suggests, in paragraph 0039, "the cousin system identifications are stored into said at least one memory under the direction of a prepaid service provider" and "the home system identification is stored in at least one memory without the direction of a prepaid service provider," and would appreciate the Patent Office's identification by column and line number(s) and/or drawing figure and part number(s), with particularity, of this subject matter.

McGregor on page 12, in claim 25, discloses software but does not disclose "the cousin system identifications are stored into said at least one memory under the direction of a prepaid service provider" and "the home system identification is stored in at least one memory without

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the direction of a prepaid service provider.”

Barring disclosure of such subject matter by both Bridges, Mauney, and McGregor, claim 17 is allowable over these two references, alone or in combination.

Thus, claims 4, 7, 9, 10, 12, 15, 17, and 28 are allowable over Bridges, Mauney, and/or McGregor.

The Patent Office rejected claims 2 and 3 under 35 U.S.C. 103(a) as being unpatentable over Bridges in view of Mauney, and further in view of Mizikovsky, U.S. Patent No. 5,983,115.

As discussed above, Bridges in view of Mauney does not make obvious either claim 1 or claim 17 and does not disclose or make obvious declaring a wireless service provider as being a home service provider or home category service provider.

Mizikovsky discloses (abstract) a communication device that locates a wireless service provider in a multi-service provider environment using a stored list of preferred service providers, the list has a plurality of uniquely identified sublists, each sublist is associated with a different geographic area and identifies a more preferred service provider and a less preferred service provider. Mizikovsky discloses (col. 8, lines 36-41) the mobile communication device registers with the best stored SOC or SID, that is, an SOC or SID that has at least been associated with a preferred service provider in which the best service provider is identified by comparing the stored SOC or SID with the list of preferred SOC or SID. Mizikovsky seeks to determine if a received SID or SOC is an optimal, preferred, or prohibited service provider (col. 5, lines 57-67) and does not appear to disclose or suggest assigning a home service provider (e.g., col. 3, lines 10-18). In contrast, the claimed invention in claims 2 and 3 recites that if a received SID matches one of a plurality of SIDs, then the service provider corresponding to the matched SID from the plurality of SIDs is declared to be a home service provider for the mobile station.

Thus, claims 2 and 3 are not made obvious by Bridges, Mauney, and/or Mizikovsky.

The Patent Office rejected claims 5, 8, and 19 under 35 U.S.C. 103(a) over Bridges, in view of Mauney and further in view of Bamburak, U.S. Patent No. 6,807,418.

Claims 5, 8, and 19 are allowable for the same reasons their respective base claims 1 and 17 are allowable.

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The Patent Office rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Bridges in view of Mauney and McGregor, and further in view of Mizikovsky, U.S. Patent No. 5,983,115.

The Patent Office alleged, on page 15, lines 4-5, of the Final Office Action dated October 29 2008, that “Bridges, Mauney, and McGregor, in combination, fail the common spatial characteristic is comprised of a postal zone.”

Mizikovsky discloses (col. 8, lines 36-41) the mobile communication device registers with the best stored SOC or SID, that is, an SOC or SID that has at least been associated with a preferred service provider in which the best service provider is identified by comparing the stored SOC or SID with the list of preferred SOC or SID. Mizikovsky seeks to determine if a received SID or SOC is an optimal, preferred, or prohibited service provider (col. 5, lines 57-67) and does not appear to disclose or suggest assigning a home service provider (e.g., col. 3, lines 10-18). In contrast, the claimed invention in claim 1 recites that if a received SID matches one of a plurality of SIDs, then the service provider corresponding to the matched SID from the plurality of SIDs is declared to be a home service provider for the mobile station.

It does not appear that Bridges, Mauney, McGregor, or Mizikovsky discloses or suggests “a list containing a plurality of other SIDs having a common spatial characteristic.” Mizikovsky, in particular, does not disclose or suggest such a list.

Thus, claim 11 is allowable over Bridges, Mauney, McGregor, and/or Mizikovsky.

The Patent Office rejected claims 13 and 16 under 35 U.S.C. 103(a) over Bridges, Mauney, and McGregor, and further in view of Bamburak.

None of Bridges, Mauney, McGregor, or Bamburak disclose or suggest comparing a received SID to SIDs on a list containing a plurality of other SIDs having a common spatial characteristic to declare a home service provider (subject matter found in base claim 10).

Thus, claims 13 and 16 allowable over the prior art of record.

The Patent Office rejected claims 29 and 30 under 35 U.S.C. 103(a) over Bridges in view of Mauney and further in view of Osmani, U.S. Patent No. 5,815,807.

Osmani discloses (column 1, lines 42-49) “Billing services for radiotelephone subscriber units include prepaid short term billing structures such as calling cards and debit cards and

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postpaid periodic billing structures. Cellular communication systems are owned and operated for profit by communications companies who typically sell use of the system based on the amount of time spent by the user on the system and the distance involved between the communicating locations. Users may lease or buy cellular phones in order to use them on the system.”

As discussed above, Bridges in view of Mauney does not make obvious either claim 1 or claim 17 and does not disclose or make obvious declaring a wireless service provider as being a home service provider or home category service provider. Osmani does not remedy the deficiency of Bridges in view of Mauney.

Thus, claims 29 and 30 are allowable over the prior art of record.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims 1-17, 19, and 28-30 under 35 U.S.C. 103(a) based on Bridges, Mauney, McGregor, Mizikovsky, Bamburak, and/ or Osmani, and to allow all of the pending claims 1-17, 19, 20, and 22-32 as now presented for examination. An early notification of the allowability of claims 1-17, 19, 20, and 22-32 is earnestly solicited.

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